the signal obtained from the first light source is an input into a computer processor; and

the computer processor provides output data used to:

control an orientation or position of the second light source and the third light source; and

control a pulse profile, a pulse energy and a pulse repetition rate of the third light source.

**2.-9**. (canceled)

**10**. The system of claim **1** wherein the third light source is configured to break molecular bonds of the tissue coagulated by the second light source when the third light source is incident upon tissue.

**11**. The system of claim **1** wherein the third light source is configured to alter the quaternary structure of proteins of the tissue when the third light source is incident upon the tissue.

**12**. The system of claim **1** wherein the first light source, the second light source and the third light source emit light through a single fiber at the same instance.

**13**. The system of claim **12** wherein the single fiber is a component of an endoscope or laparoscope.

**14**. The system of claim **1** wherein the first light source, the second light source and the third light source emit light through a single fiber at different times.

**15**. The system of claim **14** wherein the single fiber is a component of an endoscope or laparoscope.

**16-18**. (canceled)

**19**. The system of claim **1** wherein the second light source is a laser that emits energy in a range of wavelengths that are absorbed by blood.

**20**. The system of claim **19** wherein the blood comprises a mixture of oxy-hemoglobin, deoxy-hemoglobin and water.

**21**. The system of claim **19** wherein the blood contains hemoglobin that comprises pure oxy-hemoglobin.

**22**. The system of claim **19** wherein the blood contains hemoglobin that comprises pure deoxy-hemoglobin.

**23**. The system of claim **1** wherein the second light source is a ytterbium fiber laser.

**24**. The system of claim **1** wherein the second light source is a frequency-doubled ytterbium fiber laser.

**25**. The system of claim **1** wherein the third light source is a Tm doped fiber master oscillator power amplifier (MOPA).

**26.-28**. (canceled)

**29**. The system of claim **1** wherein the second light source is configured to emit energy in a range of wavelengths including 532 nm.

**30**. The system of claim **1** wherein the first light source is configured as a swept source optical coherence tomography light source.

**31**. The system of claim **1** wherein the first light source is configured as a broadband optical coherence tomography light source.

**32**. The system of claim **1** wherein the first light source comprises a multiphoton luminescence light source.

**33**. The system of claim **1** wherein the first light source comprises an optical coherence tomography light source and a multiphoton luminescence light source.

**34**. (canceled)

**35**. The system of claim **1** wherein the third light source is a laser configured to emit energy at an amplitude and frequency sufficient to break molecular bonds of the tissue.

**36**. A system comprising:

an imaging light source configured to provide data for use in imaging tissue when the imaging light source is incident upon a first portion of the tissue;

a coagulating light source configured to emit coagulating light to coagulate the tissue when the coagulating light source is incident upon a second portion of the tissue, wherein the coagulating light source is configured to emit energy in a range of wavelengths from 350 nm to 2200 nm; and

a bond-breaking light source configured to emit bond-breaking light to break molecular bonds of the tissue when the bond-breaking light source is incident upon a third portion of the tissue, wherein the bond-breaking light source is a tunable semiconductor laser seeded fiber amplified source configured to emit energy in a range of wavelengths from 1800 nm to 2200 nm and wherein the coagulating light source is configured to emit energy at an amplitude and frequency sufficient to modify at least quaternary structure of tissue proteins in blood vessels without completely breaking a majority of the molecular bonds of the tissue, wherein:

the imaging light source comprises an optical coherence tomography light source;

the signal obtained from the imaging light source is used to orient or position the coagulating light source and the bond-breaking light source;

the signal obtained from the first light source is an input into a computer processor; and

the computer processor provides output data used to:

control an orientation or position of the coagulating light source and the bond-breaking light source; and

control a pulse profile, a pulse energy and a pulse repetition rate of the bond-breaking light source.

**37**. (canceled)

**38**. (canceled)

**39**. The system of claim **36** wherein the imaging light source comprises an optical coherence tomography light source and a multiphoton luminescence light source.

**40**. The system of claim **36** wherein the coagulating light and the bond-breaking light originate from a common light source.

**41**. The system of claim **40** wherein the common light source is a diode laser seeded fiber amplified source.

**42**. The system of claim **41** wherein the diode laser seeded amplified source is configured to emit energy in a range of wavelengths from 1800 nm to 2200 nm.

**43.-48**. (canceled)

**49**. The system of claim **36** wherein the bond-breaking light source is configured to break molecular bonds of the tissue coagulated by the coagulating light source when the bond-breaking light source is incident upon the tissue.

**50.-51**. (canceled)

**52**. The system of claim **36** wherein the coagulating light source and the bond-breaking light source originate from separate light sources.

**53.-123**. (canceled)

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